

## ABSTRACT

A method and computer program for approximating a gradient, the gradient defining a nonlinear transition from one color or gray level to another in an image where the rate of transition is determined by the function  $y = x^e$  where  $e > 1$ . The method includes identifying an error tolerance, selecting an optimal number of set points on a curve defined by the function including determining each set point by evaluating a maximum error between a line defined by a pair of set points and a corresponding portion of the curve using the error tolerance and approximating the curve by a series of linear portions connecting the set points.

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